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23 September 2015

John Reynolds
Durango Geophysical Operations
35853 Highway 550
Durango, CO 81301

RE: Pkg.1, Pkg.2 +

Enclosed are the results of analyses for samples received by the laboratory on 09/02/15 15:45. If you need any further assistance, please feel free to contact me.

Sincerely,

Debbie Zufelt

Reports Manager

Dellie Zufett

All accredited analytes contained in this report are denoted by an asterisk (\*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <a href="http://greenanalytical.com/certifications/">http://greenanalytical.com/certifications/</a>

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Durango Geophysical Operations

Project: Pkg.1, Pkg.2 +

35853 Highway 550 Durango CO, 81301 Project Name / Number: [none]

Project Manager: John Reynolds

**Reported:** 09/23/15 17:03

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SIL 07	1509043-01	Water	09/01/15 17:00	09/02/15 15:45
SIL 08	1509043-02	Water	09/01/15 17:00	09/02/15 15:45

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Debbie Zufelt, Reports Manager

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Durango Geophysical Operations 35853 Highway 550

Durango CO, 81301

Project: Pkg.1, Pkg.2 +
Project Name / Number: [none]

Project Manager: John Reynolds

**Reported:** 09/23/15 17:03

# **SIL 07**

#### 1509043-01 (Water)

Careeral Chemistry	Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analys
	Analyte	Resurt	- KE	WDL	Cints	Dilution	Anatyzeu	Wellou	110103	Allalys
Chloride	General Chemistry									
	Acidity	304	20.0		mg/L	2	09/15/15	2310 B		LLG
Part	Chloride*	<10.0	10.0	5.00	mg/L	1	09/14/15	4500-Cl- C		LLG
PH	Conductivity*	2150	10.0		uS/cm	1	09/03/15	2510 B		MAJ
Part	Fluoride*	3.56	0.500	0.110	mg/L	2	09/12/15	4500-F- C		ABP
	pH*	5.08			pH Units	1	09/03/15	EPA150.1		MAJ
	TDS*	2230	10.0		mg/L	1	09/09/15	EPA160.1	H2	ABP
Calcium*	Sulfate	1570	500	84.0	mg/L	50	09/14/15	4500-SO42- E		ABP
Calcium*         460         0.200         0.028         mg/L         10         09/10/15         EPA200.7         JGS           Gold         <0.100         0.100         mg/L         1         09/23/15         EPA200.7         JGS           ron*         151         0.500         0.035         mg/L         10         09/10/15         EPA200.7         JGS           Magnesium*         31.4         1.00         0.324         mg/L         10         09/10/15         EPA200.7         JGS           Hardness         1280         4.62         1.40         mg/L         10         09/10/15         EPA200.7         JGS           Potassium*         1.63         1.00         0.335         mg/L         1         09/10/15         EPA200.7         JGS           Ecotal Recoverable Metals by ICPMS (E200.8)         3.72         1.00         0.305         mg/L         2         09/10/15         EPA200.7         JGS           Actionny*         <0.0100         0.0100         0.0010         mg/L         20         09/14/15         EPA200.8         JGS           Actionny*         <0.0100         0.0100         0.0003         mg/L         20         09/14/15         EPA200.8 <th< td=""><td>Total Recoverable Metals by 1</td><td>ICP (E200.7)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Total Recoverable Metals by 1	ICP (E200.7)								
Solid	Aluminum*	4.23	0.500	0.200	mg/L	10	09/10/15	EPA200.7		JGS
ron*         151         0.500         0.035         mg/L         10         09/10/15         EPA200.7         JGS           Magnesium*         31.4         1.00         0.324         mg/L         10         09/10/15         EPA200.7         JGS           Hardness         1280         4.62         1.40         mg/L         10         09/10/15         EPA200.7         JGS           Godium*         8.72         1.00         0.335         mg/L         1         09/10/15         EPA200.7         JGS           Actionony*         8.72         1.00         0.305         mg/L         20         09/14/15         EPA200.7         JGS           Actionony*         <0.0100         0.0100         0.0013         mg/L         20         09/14/15         EPA200.8         JGS           Actionony*         <0.0100         0.0100         0.0030         mg/L         20         09/14/15         EPA200.8         JGS           Actionony*         <0.0100         0.0100         0.0003         mg/L         20         09/14/15         EPA200.8         JGS           Actionium*         <0.0100         0.0100         0.0003         mg/L         20         09/14/15         EPA200.8	Calcium*	460	0.200	0.028	mg/L	10	09/10/15	EPA200.7		JGS
Magnesium*   31.4   1.00   0.324   mg/L   10   09/10/15   EPA200.7   JGS	Gold	< 0.100	0.100		mg/L	1	09/23/15	EPA200.7		JGS
Hardness 1280 4.62 1.40 mg/L 10 09/10/15 2340 B JGS Potassium* 1.63 1.00 0.335 mg/L 1 09/10/15 EPA200.7 JGS Sodium* 8.72 1.00 0.305 mg/L 1 09/10/15 EPA200.7 JGS Sodium* 8.72 1.00 0.305 mg/L 1 09/10/15 EPA200.7 JGS  Total Recoverable Metals by ICPMS (E200.8)  **Total Recoverable Metals by ICPMS (E200.8)  **Arsenic*** <pre></pre>	ron*	151	0.500	0.035	mg/L	10	09/10/15	EPA200.7		JGS
Dotassium   No.   No.	Magnesium*	31.4	1.00	0.324	mg/L	10	09/10/15	EPA200.7		JGS
Solition   Solition	<b>Hardness</b>	1280	4.62	1.40	mg/L	10	09/10/15	2340 B		JGS
Color   Colo	Potassium*	1.63	1.00	0.335	mg/L	1	09/10/15	EPA200.7		JGS
Antimony*         <0.0100         0.0100         0.0013         mg/L         20         09/14/15         EPA200.8         JGS           Arsenic*         <0.0100         0.0100         0.0030         mg/L         20         09/14/15         EPA200.8         JGS           Barium*         <0.0100         0.0100         0.0009         mg/L         20         09/14/15         EPA200.8         JGS           Beryllium*         <0.0100         0.0100         0.0003         mg/L         20         09/14/15         EPA200.8         JGS           Cadmium*         <0.0020         0.0020         0.0003         mg/L         20         09/14/15         EPA200.8         JGS           Chromium*         <0.0600         0.0600         0.0040         mg/L         20         09/14/15         EPA200.8         JGS           Copper*         <0.0039         0.0020         0.0012         mg/L         20         09/14/15         EPA200.8         JGS           Manganese*         46.0         0.0100         0.0007         mg/L         20         09/14/15         EPA200.8         JGS           Silver*         <0.0200         0.0200         0.0004         mg/L         20         09/14/15	Sodium*	8.72	1.00	0.305	mg/L	1	09/10/15	EPA200.7		JGS
Arsenic*         <0.0100         0.0100         0.0030         mg/L         20         09/14/15         EPA200.8         JGS           Barium*         <0.0100         0.0100         0.0009         mg/L         20         09/14/15         EPA200.8         JGS           Beryllium*         <0.0100         0.0100         0.0003         mg/L         20         09/14/15         EPA200.8         JGS           Cadmium*         <0.0020         0.0020         0.0003         mg/L         20         09/14/15         EPA200.8         JGS           Chromium*         <0.0600         0.0600         0.0040         mg/L         20         09/14/15         EPA200.8         JGS           Copper*         <0.0039         0.0020         0.0012         mg/L         20         09/14/15         EPA200.8         JGS           Manganese*         46.0         0.0100         0.0007         mg/L         20         09/14/15         EPA200.8         JGS           Silver*         <0.0789         0.0100         0.0004         mg/L         20         09/14/15         EPA200.8         JGS           Silver*         <0.0020         0.0020         0.0069         mg/L         20         09/14/15	Total Recoverable Metals by 1	ICPMS (E200.8)								
Sarium*   Solution   State	Antimony*	< 0.0100	0.0100	0.0013	mg/L	20	09/14/15	EPA200.8		JGS
Seryllium*	Arsenic*	< 0.0100	0.0100	0.0030	mg/L	20	09/14/15	EPA200.8		JGS
Cadmium*         0.0020         0.0020         0.0003         mg/L         20         09/14/15         EPA200.8         JGS           Chromium*         <0.0600         0.0600         0.0040         mg/L         20         09/14/15         EPA200.8         JGS           Copper*         0.0039         0.0020         0.0012         mg/L         20         09/14/15         EPA200.8         JGS           Lead*         <0.0100         0.0100         0.0007         mg/L         20         09/14/15         EPA200.8         JGS           Wanganese*         46.0         0.0100         0.0011         mg/L         20         09/14/15         EPA200.8         JGS           Nickel*         0.0789         0.0100         0.0004         mg/L         20         09/14/15         EPA200.8         JGS           Selenium*         <0.0200         0.0200         0.0069         mg/L         20         09/14/15         EPA200.8         JGS           Silver*         <0.0020         0.0020         0.0005         mg/L         20         09/14/15         EPA200.8         JGS	Barium*	< 0.0100	0.0100	0.0009	mg/L	20	09/14/15	EPA200.8		JGS
Chromium*	Beryllium*	< 0.0100	0.0100	0.0003	mg/L	20	09/14/15	EPA200.8		JGS
Copper*   0.0039   0.0020   0.0012   mg/L   20   09/14/15   EPA200.8   JGS	Cadmium*	0.0020	0.0020	0.0003	mg/L	20	09/14/15	EPA200.8		JGS
Clead*   Co.0100   Co.0100   Co.0007   mg/L   20   Co.014/15   EPA200.8   JGS	Chromium*	< 0.0600	0.0600	0.0040	mg/L	20	09/14/15	EPA200.8		JGS
Manganese*         46.0         0.0100         0.0011         mg/L         20         09/14/15         EPA200.8         JGS           Nickel*         0.0789         0.0100         0.0004         mg/L         20         09/14/15         EPA200.8         JGS           Selenium*         <0.0200         0.0200         0.0069         mg/L         20         09/14/15         EPA200.8         JGS           Silver*         <0.0020         0.0020         0.0005         mg/L         20         09/14/15         EPA200.8         JGS	Copper*	0.0039	0.0020	0.0012	mg/L	20	09/14/15	EPA200.8		JGS
Nickel*         0.0789         0.0100         0.0004         mg/L         20         09/14/15         EPA200.8         JGS           Selenium*         <0.0200         0.0200         0.0069         mg/L         20         09/14/15         EPA200.8         JGS           Silver*         <0.0020         0.0020         0.0005         mg/L         20         09/14/15         EPA200.8         JGS	Lead*	< 0.0100	0.0100	0.0007	mg/L	20	09/14/15	EPA200.8		JGS
Selenium*       <0.0200	Manganese*	46.0	0.0100	0.0011	mg/L	20	09/14/15	EPA200.8		JGS
Silver*   \$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Nickel*	0.0789	0.0100	0.0004	mg/L	20	09/14/15	EPA200.8		JGS
30020 00000	Selenium*	< 0.0200	0.0200	0.0069	mg/L	20	09/14/15	EPA200.8		JGS
Fhallium* <0.0020 0.0020 0.0003 mg/L 20 09/14/15 EPA200.8 JGS	Silver*	< 0.0020	0.0020	0.0005	mg/L	20	09/14/15	EPA200.8		JGS
	Γhallium*	< 0.0020	0.0020	0.0003	mg/L	20	09/14/15	EPA200.8		JGS

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Debbie Zufelt, Reports Manager

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Durango Geophysical Operations

Project: Pkg.1, Pkg.2 + Project Name / Number: [none]

35853 Highway 550 Durango CO, 81301

Project Name / Number: [none]
Project Manager: John Reynolds

Reported:

09/23/15 17:03

#### **SIL 07**

# 1509043-01 (Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Total Mercury by CVAA									
Mercury*	< 0.0002	0.0002	0.00002	mg/L	1	09/10/15	245.1	VI	JGS

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Durango Geophysical Operations 35853 Highway 550

Durango CO, 81301

Project: Pkg.1, Pkg.2 +

Project Name / Number: [none]
Project Manager: John Reynolds

**Reported:** 09/23/15 17:03

### **SIL 08**

# 1509043-02 (Water)

			70 <del>4</del> 3-02 (11						
Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
General Chemistry									
Acidity	386	20.0		mg/L	2	09/15/15	2310 B		LLG
Chloride*	<10.0	10.0	5.00	mg/L	1	09/14/15	4500-Cl- C		LLG
Conductivity*	2180	10.0		uS/cm	1	09/03/15	2510 B		MAJ
Fluoride*	10.1	2.50	0.550	mg/L	10	09/12/15	4500-F- C		ABP
pH*	3.13			pH Units	1	09/03/15	EPA150.1		MAJ
TDS*	2030	10.0		mg/L	1	09/09/15	EPA 160.1	H2	ABP
Sulfate	1420	500	84.0	mg/L	50	09/14/15	4500-SO42- E		ABP
Total Recoverable Metals by ICP	(E200.7)								
Aluminum*	27.5	0.050	0.020	mg/L	1	09/11/15	EPA200.7		JGS
Calcium*	351	0.200	0.028	mg/L	10	09/15/15	EPA200.7		JGS
Gold	< 0.100	0.100		mg/L	1	09/23/15	EPA200.7		JGS
ron*	101	0.050	0.003	mg/L	1	09/11/15	EPA200.7		JGS
Magnesium*	25.6	0.100	0.032	mg/L	1	09/11/15	EPA200.7		JGS
<b>Hardness</b>	982	0.911	0.202	mg/L	10	09/15/15	2340 B		JGS
Potassium*	1.86	1.00	0.335	mg/L	1	09/11/15	EPA200.7		JGS
Sodium*	4.65	1.00	0.305	mg/L	1	09/11/15	EPA200.7		JGS
Total Recoverable Metals by ICPM	MS (E200.8)								
Antimony*	< 0.0100	0.0100	0.0013	mg/L	20	09/14/15	EPA200.8		JGS
Arsenic*	0.0275	0.0100	0.0030	mg/L	20	09/14/15	EPA200.8		JGS
3arium*	0.0174	0.0100	0.0009	mg/L	20	09/14/15	EPA200.8		JGS
Beryllium*	0.0111	0.0100	0.0003	mg/L	20	09/14/15	EPA200.8		JGS
Cadmium*	0.0812	0.0020	0.0003	mg/L	20	09/14/15	EPA200.8		JGS
Chromium*	< 0.0600	0.0600	0.0040	mg/L	20	09/14/15	EPA200.8		JGS
Copper*	5.77	0.0020	0.0012	mg/L	20	09/14/15	EPA200.8		JGS
_ead*	0.0502	0.0100	0.0007	mg/L	20	09/14/15	EPA200.8		JGS
Manganese*	34.3	0.0100	0.0011	mg/L	20	09/14/15	EPA200.8		JGS
Nickel*	0.0686	0.0100	0.0004	mg/L	20	09/14/15	EPA200.8		JGS
Selenium*	< 0.0200	0.0200	0.0069	mg/L	20	09/14/15	EPA200.8		JGS
Silver*	< 0.0020	0.0020	0.0005	mg/L	20	09/14/15	EPA200.8		JGS
Thallium*	< 0.0020	0.0020	0.0003	mg/L	20	09/14/15	EPA200.8		JGS

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Debbie Zufelt, Reports Manager

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Durango Geophysical Operations

Durango CO, 81301

Project: Pkg.1, Pkg.2 + 35853 Highway 550 Project Name / Number: [none]

Project Manager: John Reynolds

Reported: 09/23/15 17:03

**SIL 08** 

# 1509043-02 (Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
Total Mercury by CVAA									
Mercury*	< 0.0002	0.0002	0.00002	mg/L	1	09/10/15	245.1	Vl	JGS

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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Durango Geophysical Operations

Project: Pkg.1, Pkg.2 +

35853 Highway 550 Durango CO, 81301 Project Name / Number: [none]
Project Manager: John Reynolds

**Reported:** 09/23/15 17:03

**General Chemistry - Quality Control** 

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B509075 - General Prep - Wet Chem										
Duplicate (B509075-DUP2)	Sour	rce: 1509051-	01	Prepared &	Analyzed:	09/03/15				
pH	8.06		pH Units		8.04			0.248	20	
Reference (B509075-SRM1)				Prepared &	Analyzed:	09/03/15				
pH	9.02		pH Units	9.13		98.8	97.807-102.19	3		
Batch B509082 - General Prep - Wet Chem										
Duplicate (B509082-DUP2)	Sour	rce: 1509051-	08	Prepared &	Analyzed:	09/03/15				
Conductivity	1570	10.0	uS/cm		1560			0.511	20	
Reference (B509082-SRM1)				Prepared &	: Analyzed:	09/03/15				
Conductivity	596		uS/cm	543		110	90-110			
Batch B509129 - General Prep - Wet Chem										
Blank (B509129-BLK1)				Prepared &	: Analyzed:	09/12/15				
Fluoride	ND	0.250	mg/L							
LCS (B509129-BS1)				Prepared &	: Analyzed:	09/12/15				
Fluoride	0.951	0.250	mg/L	1.00		95.1	85-115			
LCS Dup (B509129-BSD1)				Prepared &	Analyzed:	09/12/15				
Fluoride	0.942	0.250	mg/L	1.00		94.2	85-115	0.951	20	
Batch B509134 - General Prep - Wet Chem										
Blank (B509134-BLK1)				Prepared &	. Analyzed:	09/09/15				

ND

10.0

mg/L

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Durango Geophysical Operations

Project: Pkg.1, Pkg.2 +

35853 Highway 550 Durango CO, 81301 Project Name / Number: [none]
Project Manager: John Reynolds

**Reported:** 09/23/15 17:03

**General Chemistry - Quality Control** 

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B509134 - General Prep - Wet Chem										
Duplicate (B509134-DUP2)	Sou	rce: 1509050-	01	Prepared &	Analyzed:	09/09/15				
TDS	355	10.0	mg/L		365			2.78	20	
Reference (B509134-SRM1)				Prepared &	: Analyzed:	09/09/15				
TDS	560	10.0	mg/L	590		94.9	85-115			
Batch B509149 - General Prep - Wet Chem										
Blank (B509149-BLK1)				Prepared &	: Analyzed:	09/14/15				
Chloride	ND	10.0	mg/L							
LCS (B509149-BS1)				Prepared &	: Analyzed:	09/14/15				
Chloride	105	10.0	mg/L	100		105	85-115			
LCS Dup (B509149-BSD1)				Prepared &	: Analyzed:	09/14/15				
Chloride	104	10.0	mg/L	100		104	85-115	0.957	20	
Batch B509151 - General Prep - Wet Chem										
Blank (B509151-BLK1)				Prepared &	: Analyzed:	09/14/15				
Sulfate	ND	10.0	mg/L							
LCS (B509151-BS1)				Prepared &	: Analyzed:	09/14/15				
Sulfate	46.7	10.0	mg/L	50.0		93.4	85-115			
LCS Dup (B509151-BSD1)				Prepared &	Analyzed:	09/14/15				
Sulfate	45.6	10.0	mg/L	50.0		91.2	85-115	2.38	20	

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Debbie Zufelt, Reports Manager

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Durango Geophysical Operations

Project: Pkg.1, Pkg.2 + 35853 Highway 550 Project Name / Number: [none] Durango CO, 81301 Project Manager: John Reynolds

Reported: 09/23/15 17:03

# Total Recoverable Metals by ICP (E200.7) - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B509096 - EPA 200.2										
Blank (B509096-BLK1)				Prepared &	k Analyzed:	09/10/15				
Aluminum	ND	0.050	mg/L							
Calcium	ND	0.020	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B509096-BS1)				Prepared &	Analyzed:	09/10/15				
Aluminum	3.97	0.050	mg/L	4.00		99.4	85-115			
Calcium	4.06	0.020	mg/L	4.00		101	85-115			
Iron	4.04	0.050	mg/L	4.00		101	85-115			
Magnesium	20.2	0.100	mg/L	20.0		101	85-115			
Potassium	8.03	1.00	mg/L	8.00		100	85-115			
Sodium	6.63	1.00	mg/L	6.48		102	85-115			
LCS Dup (B509096-BSD1)				Prepared &	Analyzed:	09/10/15				
Aluminum	4.02	0.050	mg/L	4.00		100	85-115	1.11	20	
Calcium	4.07	0.020	mg/L	4.00		102	85-115	0.416	20	
Iron	4.13	0.050	mg/L	4.00		103	85-115	2.16	20	
Magnesium	20.4	0.100	mg/L	20.0		102	85-115	0.989	20	
Potassium	8.06	1.00	mg/L	8.00		101	85-115	0.382	20	
Sodium	6.64	1.00	mg/L	6.48		102	85-115	0.0634	20	
Batch B509115 - EPA 200.2										
Blank (B509115-BLK1)				Prepared &	Analyzed:	09/11/15				
Aluminum	ND	0.050	mg/L							
Calcium	0.034	0.020	mg/L							
Iron	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Potassium	ND	1.00	mg/L							
Sodium	ND	1.00	mg/L							

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#### www.GreenAnalytical.com

Durango Geophysical Operations 35853 Highway 550

Durango CO, 81301

Project Name / Number: [none]
Project Manager: John Reynolds

Reported:

09/23/15 17:03

# Total Recoverable Metals by ICP (E200.7) - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B509115 - EPA 200.2										
LCS (B509115-BS1)				Prepared &	Analyzed:	09/11/15				
Aluminum	3.91	0.050	mg/L	4.00		97.9	85-115			
Calcium	4.05	0.020	mg/L	4.00		101	85-115			
Iron	3.84	0.050	mg/L	4.00		96.0	85-115			
Magnesium	19.9	0.100	mg/L	20.0		99.5	85-115			
Potassium	7.47	1.00	mg/L	8.00		93.3	85-115			
Sodium	6.14	1.00	mg/L	6.48		94.8	85-115			
LCS Dup (B509115-BSD1)				Prepared &	Analyzed:	09/11/15				
Aluminum	3.94	0.050	mg/L	4.00		98.6	85-115	0.722	20	
Calcium	4.11	0.020	mg/L	4.00		103	85-115	1.27	20	
Iron	3.86	0.050	mg/L	4.00		96.5	85-115	0.529	20	
Magnesium	20.0	0.100	mg/L	20.0		100	85-115	0.544	20	
Potassium	7.65	1.00	mg/L	8.00		95.6	85-115	2.39	20	
Sodium	6.18	1.00	mg/L	6.48		95.3	85-115	0.577	20	
Batch B509264 - EPA 200.2										
Blank (B509264-BLK1)				Prepared &	: Analyzed:	09/23/15				
Gold	ND	0.100	mg/L							
LCS (B509264-BS1)				Prepared &	: Analyzed:	09/23/15				
Gold	4.85	0.100	mg/L	5.00		97.0	85-115			
LCS Dup (B509264-BSD1)				Prepared &	: Analyzed:	09/23/15				
Gold	5.18	0.100	mg/L	5.00		104	85-115	6.58	20	

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Durango Geophysical Operations 35853 Highway 550 Project: Pkg.1, Pkg.2 + Project Name / Number: [none]

Reported:

Durango CO, 81301

Project Manager: John Reynolds

09/23/15 17:03

# Total Recoverable Metals by ICPMS (E200.8) - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B509120 - EPA 200.2M										
Blank (B509120-BLK1)				Prepared: (	09/11/15 Aı	nalyzed: 09	/14/15			
Antimony	ND	0.0005	mg/L							
Arsenic	ND	0.0005	mg/L							
Barium	ND	0.0005	mg/L							
Beryllium	ND	0.0005	mg/L							
Cadmium	ND	0.0001	mg/L							
Chromium	0.0018	0.0010	mg/L							В3
Copper	0.0001	0.0001	mg/L							B1
Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							
Nickel	ND	0.0005	mg/L							
Selenium	ND	0.0010	mg/L							
Silver	ND	0.0001	mg/L							
Thallium	ND	0.0001	mg/L							
LCS (B509120-BS1)				Prepared: (	)9/11/15 Aı	nalyzed: 09	/14/15			
Antimony	0.0484	0.0005	mg/L	0.0500		96.9	85-115			
Arsenic	0.0464	0.0005	mg/L	0.0500		92.9	85-115			
Barium	0.0478	0.0005	mg/L	0.0500		95.6	85-115			
Beryllium	0.0487	0.0005	mg/L	0.0500		97.4	85-115			
Cadmium	0.0466	0.0001	mg/L	0.0500		93.2	85-115			
Chromium	0.0501	0.0010	mg/L	0.0500		100	85-115			
Copper	0.0450	0.0001	mg/L	0.0500		90.0	85-115			
Lead	0.0458	0.0005	mg/L	0.0500		91.5	85-115			
Manganese	0.0484	0.0005	mg/L	0.0500		96.8	85-115			
Nickel	0.0457	0.0005	mg/L	0.0500		91.4	85-115			
Selenium	0.229	0.0010	mg/L	0.250		91.5	85-115			
Silver	0.0463	0.0001	mg/L	0.0500		92.5	85-115			
Thallium	0.0453	0.0001	mg/L	0.0500		90.6	85-115			

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Durango Geophysical Operations 35853 Highway 550

Durango CO, 81301

Project: Pkg.1, Pkg.2 + Project Name / Number: [none]

Reported:

09/23/15 17:03

# Total Recoverable Metals by ICPMS (E200.8) - Quality Control

Project Manager: John Reynolds

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B509120 - EPA 200.2M										
LCS Dup (B509120-BSD1)				Prepared: (	09/11/15 Ar	nalyzed: 09	/14/15			
Antimony	0.0487	0.0005	mg/L	0.0500		97.4	85-115	0.473	20	
Arsenic	0.0505	0.0005	mg/L	0.0500		101	85-115	8.34	20	
Barium	0.0501	0.0005	mg/L	0.0500		100	85-115	4.70	20	
Beryllium	0.0523	0.0005	mg/L	0.0500		105	85-115	7.11	20	
Cadmium	0.0483	0.0001	mg/L	0.0500		96.5	85-115	3.49	20	
Chromium	0.0521	0.0010	mg/L	0.0500		104	85-115	3.75	20	
Copper	0.0490	0.0001	mg/L	0.0500		98.1	85-115	8.58	20	
Lead	0.0474	0.0005	mg/L	0.0500		94.7	85-115	3.44	20	
Manganese	0.0499	0.0005	mg/L	0.0500		99.8	85-115	3.13	20	
Nickel	0.0469	0.0005	mg/L	0.0500		93.8	85-115	2.62	20	
Selenium	0.233	0.0010	mg/L	0.250		93.1	85-115	1.76	20	
Silver	0.0476	0.0001	mg/L	0.0500		95.3	85-115	2.91	20	
Thallium	0.0474	0.0001	mg/L	0.0500		94.8	85-115	4.48	20	

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Durango Geophysical Operations 35853 Highway 550

Durango CO, 81301

Project: Pkg.1, Pkg.2 + Project Name / Number: [none]

Project Manager: John Reynolds

**Reported:** 09/23/15 17:03

#### Total Mercury by CVAA- Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B509104 - EPA 245.1/7470										
Blank (B509104-BLK1)				Prepared &	Analyzed:	09/10/15				
Mercury	ND	0.0002	mg/L							
LCS (B509104-BS1)				Prepared &	Analyzed:	09/10/15				
Mercury	0.0021	0.0002	mg/L	0.00200		103	85-115			
LCS Dup (B509104-BSD1)				Prepared &	Analyzed:	09/10/15				
Mercury	0.0023	0.0002	mg/L	0.00200		114	85-115	9.84	20	

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Durango CO, 81301

dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Durango Geophysical Operations Project: Pkg.1, Pkg.2 +
35853 Highway 550 Project Name / Number: [none]

**Reported:** 09/23/15 17:03

#### **Notes and Definitions**

Project Manager: John Reynolds

	V1	Continuing calibration verification recover	v was above laboratory acceptance limits.	Target analyte was not detected in the sample.
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H2 Sample analysis performed past hold time specified by the method.

B3 Target analyte detected in method blank or continuing calibration blank. Reporting limit elevated to account for blank result.

B1 Target analyte detected in method blank at or above method reporting limit Sample concentration found to be 10 times above the

concentration found in the method blank or less than the reporting limit.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

\*Results reported on as received basis unless designated as dry.

RPD Relative Percent Difference

LCS Laboratory Control Sample (Blank Spike)

RL Report Limit

MDL Method Detection Limit

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# **CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

(970)	247-4220	

service@greenanalytical.com or dzufelt@greenanalytical.com

97	0)	247-4227	75	Suttle	St	Durango,	CO 81	30

Laboratories	Fax: (9	70) 247-4227	75 St	uttle	St D	urang	jo, C	O 8	1303	3												
Company Name (optional): DURANGO GEOPHYSICAL  Project Contact Person: JOHN REYNOLDS			Bill to (if different):								ANALYSIS REQUEST											
Project Contact Person: JOHN K	EYNOLDS			P.O.	#:												7					
Address: 25853 HWY 5	50			Con	npan	y:																
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<sup>†</sup> GAL cannot always accept verbal changes. Please fax or email written change requests.

\* Chain of Custody must be signed in "Reliquished By:" as an acceptance of services and all applicable charges.



# Common Water Quality Analysis Packages Effective January 1, 2015

Green Analytical Laboratories 75 Suttle Street Durango, CO 81303 P: 970-247-4220 -- F: 970-247-4227

- -Minimum Charge for any work-order is \$75.00.
- -Payment is due in full prior to reporting of results.
- -Standard turnaround time is 10 business days.
- -Prices include all costs including sampling containers.

(Package #1) General Water Quality: This package provides information relative to the basic mineral content of surface and ground waters. It can be used to assess common water issues but does not contain many low level health concerns.

TESTS: pH, Conductivity, Total Dissolved Solids, Alkalinity, Hardness, Chloride, Fluoride, Sulfate, Calcium, Magnesium, Potassium, Sodium and Iron......\$184.00

(Package #2) <u>Safe Drinking Water Act Inorganic Chemistry Parameters:</u> This package targets many naturally occurring, low level human health concerns but does not provide much information in regards to general water quality.

Aluminum Gold & Silvem Mn?)
\*Note: Cost of Package #1 and #2 combined (covers most common water concerns).......\$446.00

Common additions to Package #1 or #2 (Mostly specific industrial contamination sources)

(RadChem) Basic Radioactive Chemistry: Includes Gross A/B particles, Radium 226/228, and Uranium.....\$398.00

-Metals samples that contain sediment or have a high turbidity may require a digest for proper metals analysis. In this event an additional \$15 per sample requiring digest will be assessed.

-Any combination of analytes above can be tested as well as many not mentioned. Contact us with your desired suite for pricing. These suites represent our most commonly analyzed packages. These analysis suites are shown for your convenience, but may not be adequate depending on your specific situation.

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